

# REPORTER 19.1

# REPORTER 19.1 – Contents

---

- [Script File Items](#)
- [Drive Mapping](#)
- [Improved Error Handling](#)
- [Variables](#)
- [High-DPI Support](#)
- [Automotive Library Templates](#)
- [ICFD Library Template](#)
- [JavaScript](#)

# Script File Items

# Script File Items

---

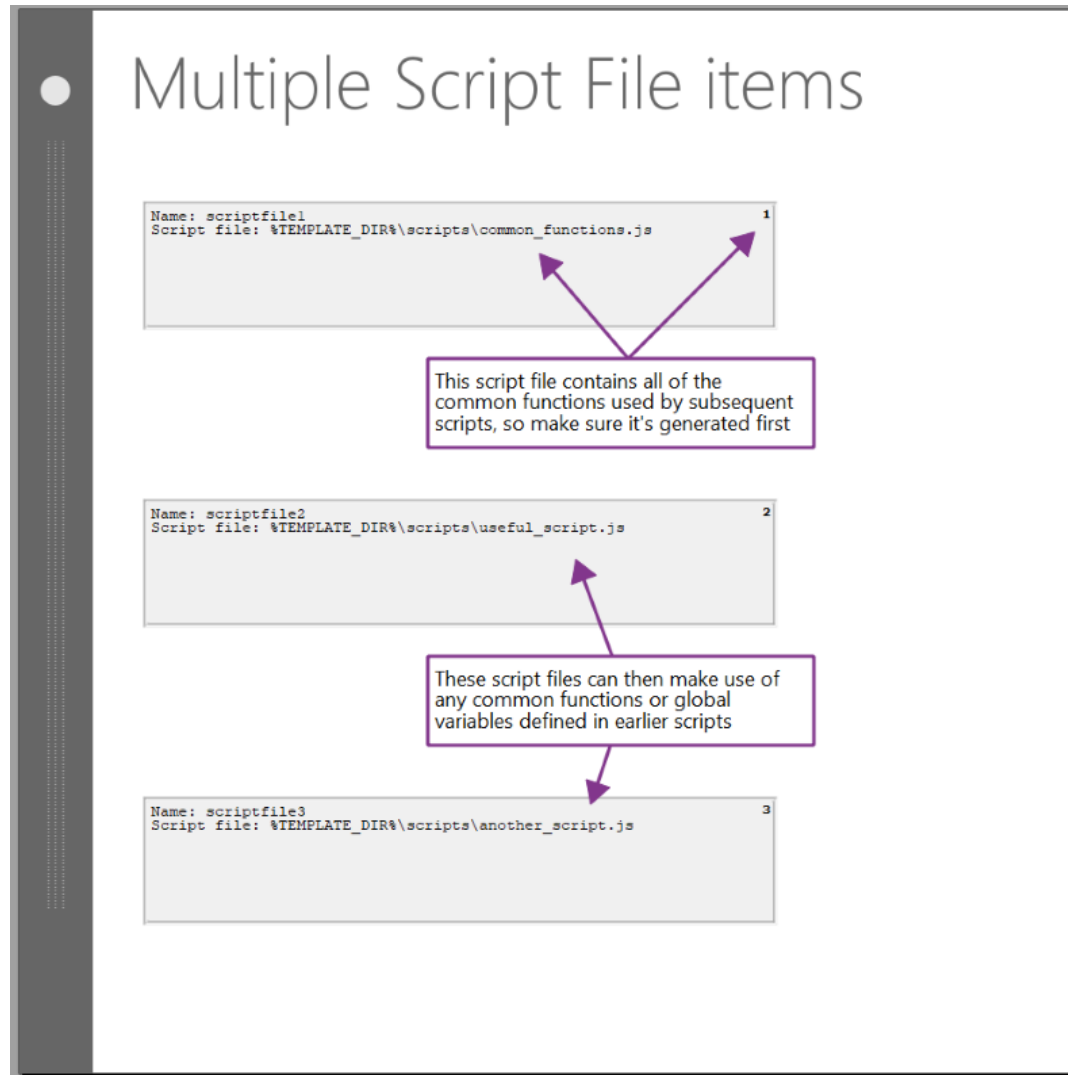
Unlike PRIMER, D3PLOT and T/HIS, REPORTER does not support the *Use()* function, or JavaScript modules. To help address this, a new **Script File** item has been added to REPORTER.



Script File items have all the features of Script items, except that rather than containing an embedded JavaScript, they point to an external script file. This allows you to edit the script in your preferred editor.

Furthermore, **since the REPORTER JavaScript environment persists for the duration of the REPORTER session** (and is shared by all scripts), you can now create one or more Script File items containing any common functions, followed by one or more Script File items that use those functions. This should provide much of the benefits of the Use function and JavaScript modules available in PRIMER, D3PLOT and T/HIS *[see next page for an example]*.

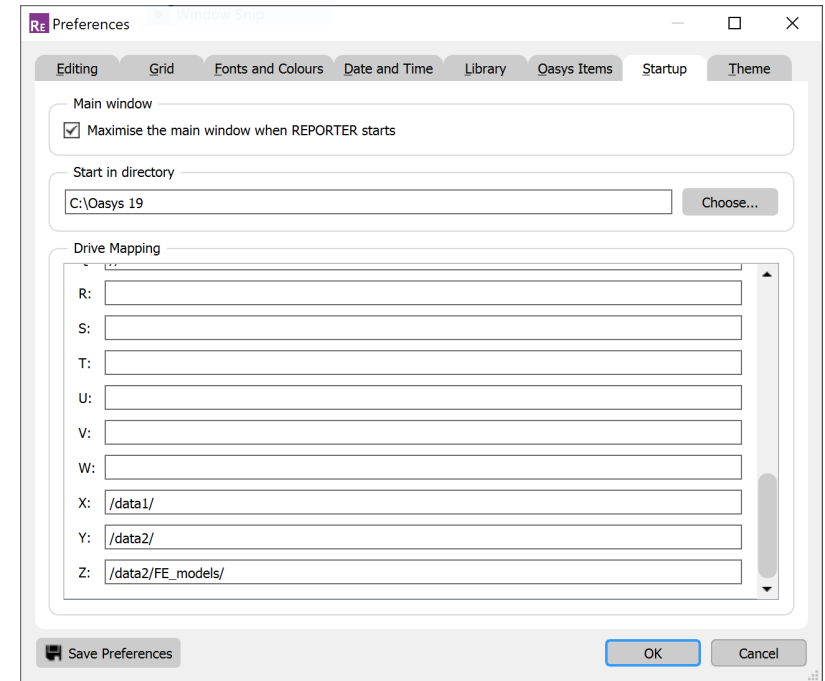
# Script File Items



# Drive Mapping

# Drive Mapping

- Consistent with our other programs, drive mapping recognition has been added to REPORTER and can be controlled using the **oasys\*drive\_x** oa\_pref setting (where 'x' can be any letter from 'a' to 'z').
- For example, setting **oasys\*drive\_x : /data1/** means that while working on Windows, anywhere REPORTER encounters **/data1/** at the beginning of a filepath it will silently replace this with **X:\**.
- Conversely, if working on Linux then **X:\** will be replaced with **/data1/**.
- The JavaScript function `File.DriveMapFilename(filename, format)` can also be used to enforce these mappings. The `<format>` argument determines which format to convert to (using the Include class constants) and can be one of `Include.NATIVE`, `Include.UNIX`, or `Include.WINDOWS`.



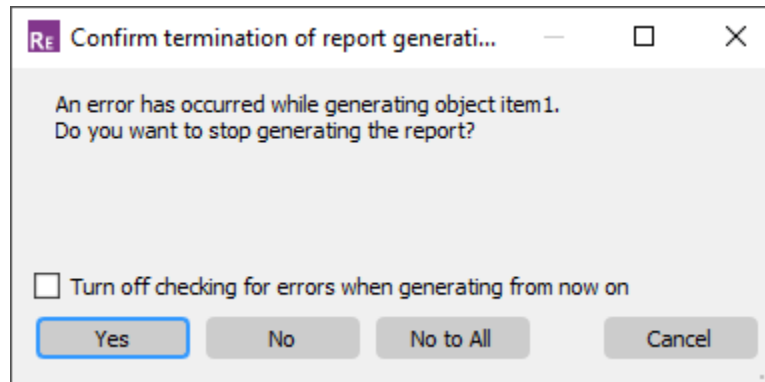
# Improved Error Handling



# Logfile

---

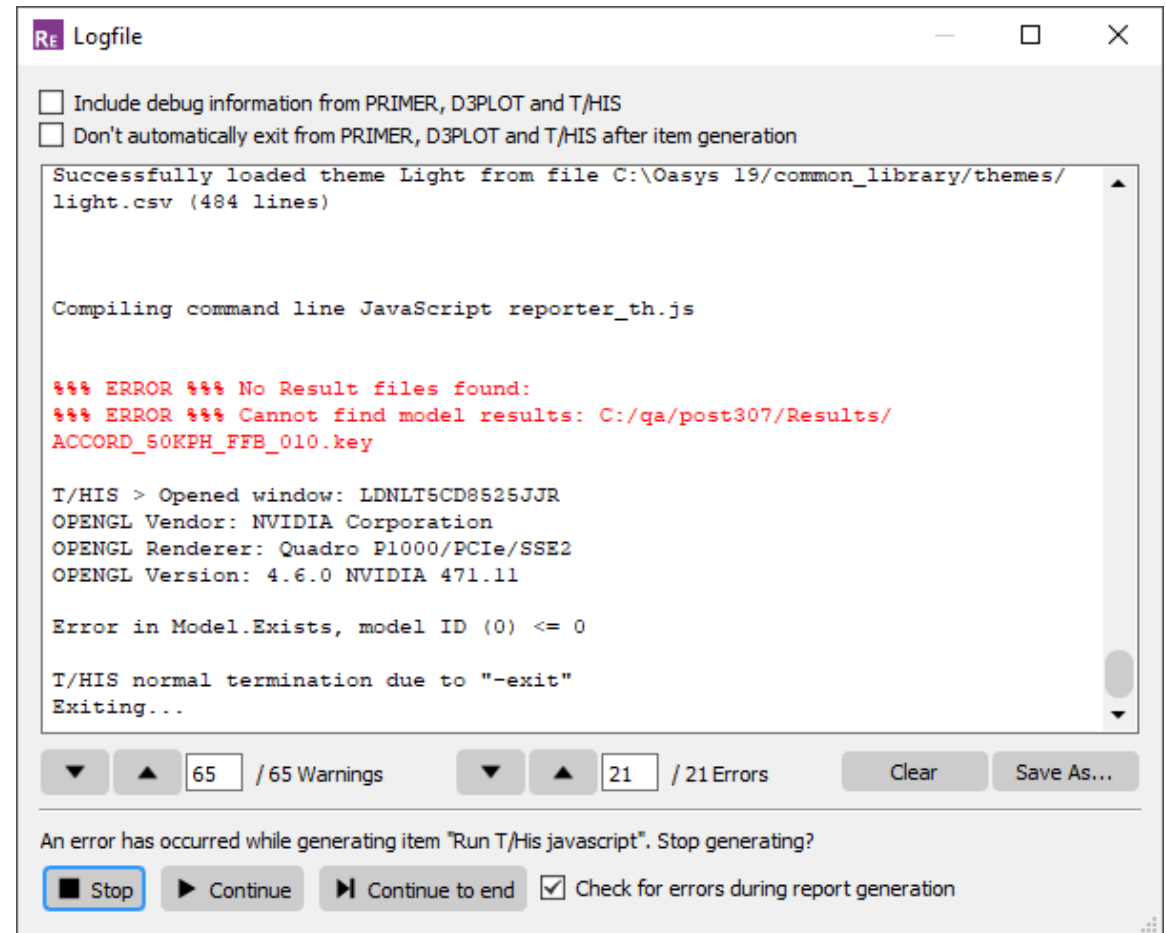
We have improved the handling of errors and warnings when generating content in REPORTER. Previously, you would have seen a message like this:



You had to decide whether to stop generating the report before being able to see the error message. Now, you get to examine any errors and warnings before deciding whether to proceed.

# Logfile

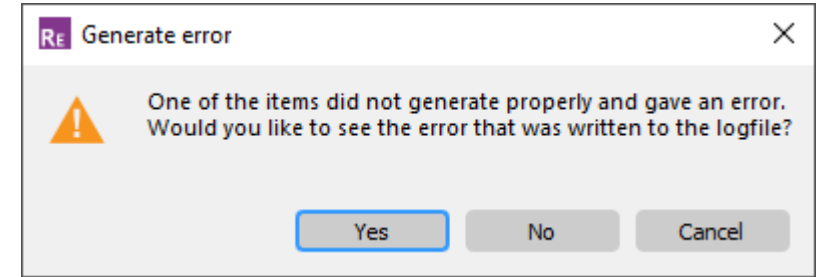
- When generating a report, if an error is encountered, the Logfile window will now appear immediately. This gives you the opportunity to examine the error before choosing whether to **Stop**, **Continue** (Logfile will reappear if another error occurs), or **Continue to end**.
- You can navigate up and down through the errors and warnings in the log file using the controls provided.



# Logfile

---

You can prevent the Logfile window from appearing when an error occurs by unchecking *'Check for errors during report generation'*. In this case, you will still be asked at the end of generation if you would like to inspect the log file.

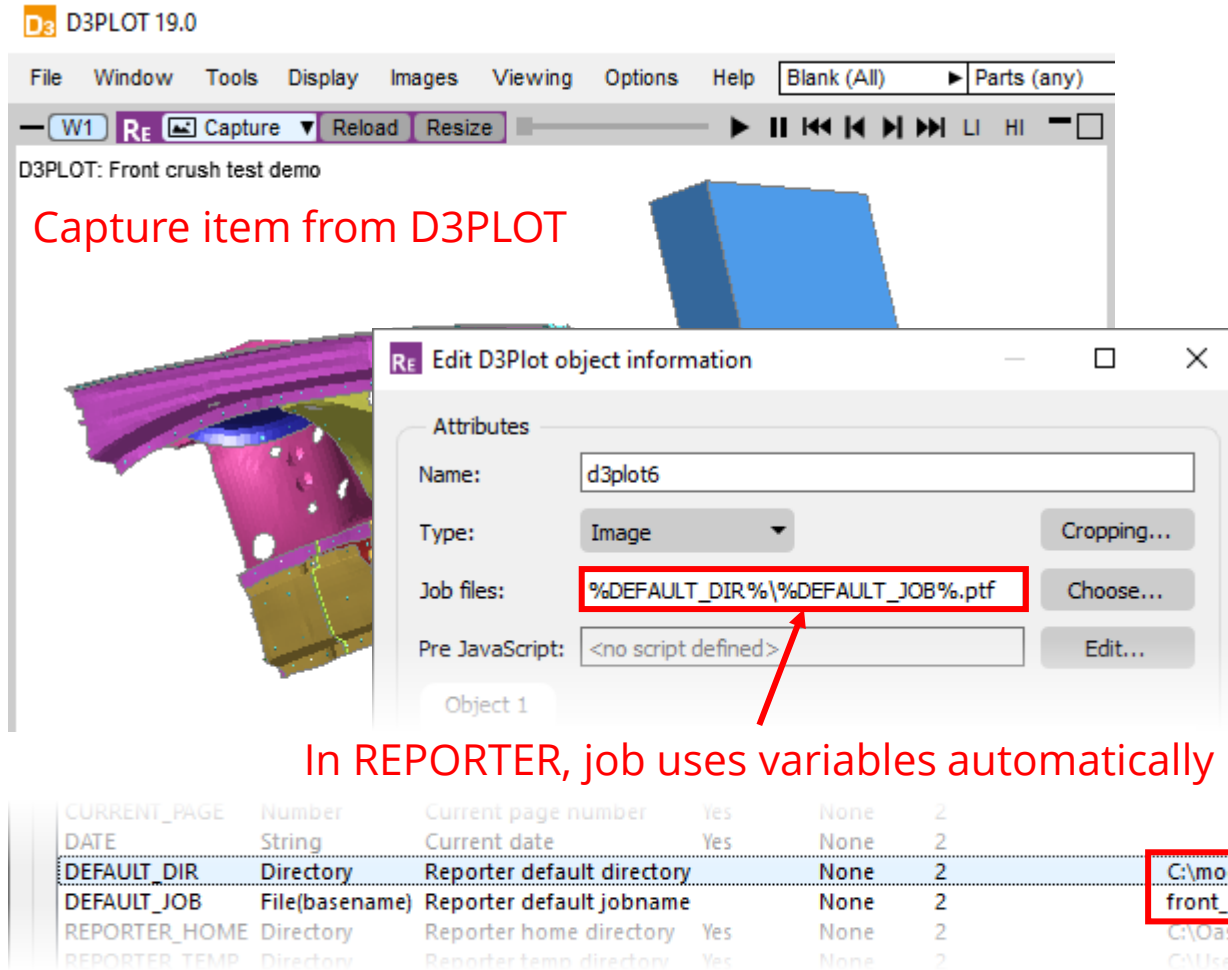


Also, the following options are now automatically saved to your REPORTER preferences upon selection:

- Include debug information from PRIMER, D3PLOT, and T/HIS
- Don't automatically exit from PRIMER, D3PLOT, and T/HIS after item generation
- Check for errors during report generation

# Variables

# Automatic update of DEFAULT\_DIR and DEFAULT\_JOB



If you open REPORTER from D3PLOT or T/HIS and capture an item, the values of DEFAULT\_DIR and DEFAULT\_JOB are now automatically updated to match the current model in D3PLOT or T/HIS (previously you would have had to edit the hardwired filenames manually). This makes it easier to set up your template to run for different models.

Model file path and filename from D3PLOT automatically

# High-DPI Support

# High-DPI Support

---

Support for high-DPI displays (e.g. most standard 4K monitors) has been improved:

- Text, icons, and widgets should now scale up in size appropriately when REPORTER is used with a high-DPI display.
- PNG image files for Icons have been replaced with Scalable Vector Graphics for maximum image clarity.
- On Windows, Display Scaling settings are respected for integer values (e.g. 200%). Fractional values (e.g. 125%) will round up to the nearest integer scaling.
- For a 4K display, we recommend using a Display Scaling in the range 150% - 225%.
- Further updates are ongoing. **Please get in touch if issues persist**, providing as much detail as possible about your display setup.

# Automotive Library Templates

- [Euro NCAP Far Side Impact 2022](#)
- [Euro NCAP Side MDB and Pole 2022](#)
- [IIHS Side Impact 2.0](#)
- [IIHS Front ODB and SOB Impact 2021](#)
- [MPDB Assessment](#)

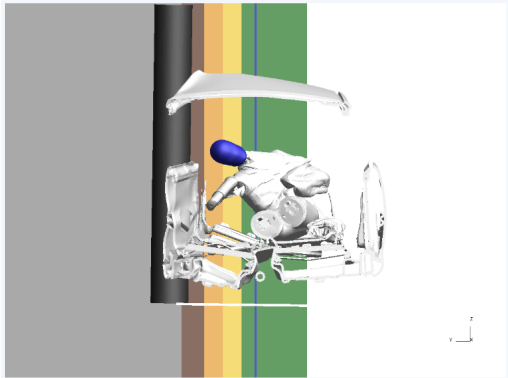


# Euro NCAP Far Side Impact

REPORTER 19.0 comes with the new Euro NCAP Far Side Impact 2022 template, which follows the [Far Side Test and Assessment Protocol v2.1.1](#).

**Euro NCAP Far Side Pole Impact Assessment** 2022 (v2.1.1)

### Head Excursion



Body Region	Score
Head	3.0 / 3
Neck	3.0 / 3
Chest and Abdomen	3.0 / 3

Countermeasure	Yes
	Yes

Pelvis and Lumbar	Performance
Pubic symphysis [kN]	PASS
Lumbar Fy [kN]	PASS
Lumbar Fz [kN]	PASS
Lumbar Mx [Nm]	PASS

Modifier	0
	0

Head Excursion	Value [mm]	Zone
Excursion	609.3	ORANGE

Note that the maximum possible score for each body region is 4, resulting in a total possible score of 12. The maximum number of points available per body region in each test depends upon the excursion value observed, and upon the specific far side impact countermeasures with which the vehicle is equipped. Where the peak head excursion is outside the green zone, the number of points available for each body region (4) will be reduced according to the zone in which excursion occurs.

### Total Pole Far Side Score

9 / 12

1/9 Model | C:\qm\post322\Far\_Side\_Pole/

The template takes as an input the maximum intrusion data output from the updated [Side MDB and Side Pole](#) templates. It then calculates the maximum head excursion and produces a plot of the results, as well as calculating the total test score for either MDB or Pole.

# Euro NCAP Side MDB and Pole 2022

The MDB and Pole templates have been updated to the latest 2022 protocols ([AOP v9.1.3](#)).

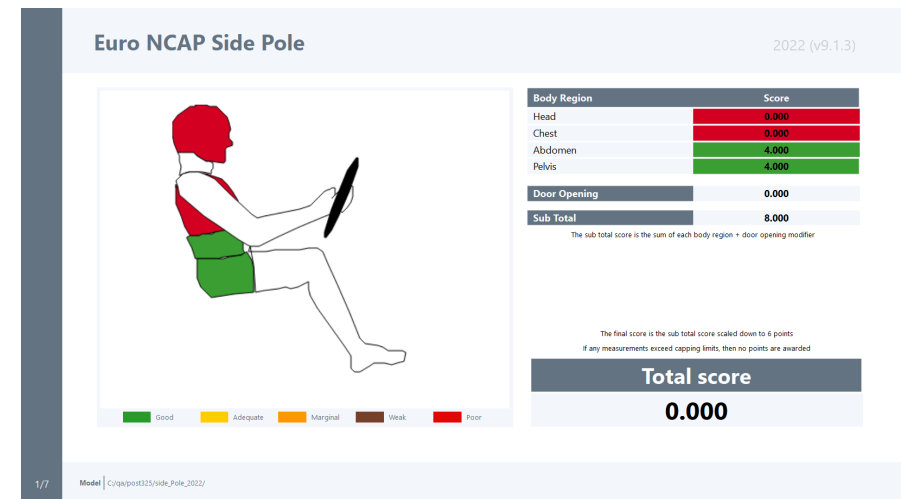
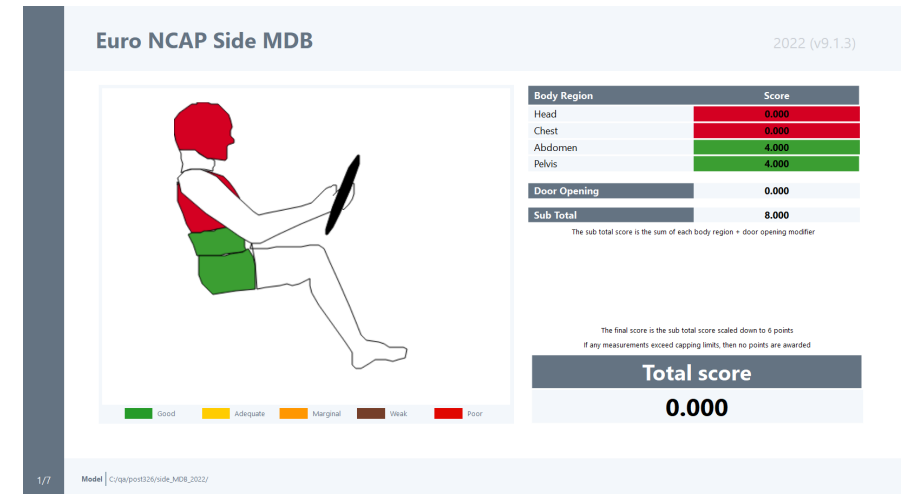
The templates also have a new option to output a CSV file containing maximum intrusion data required by the new [Far Side Impact](#) template.

To produce the CSV file, some additional input parameters are required. The CSV file is saved to:

```
%IMAGES_DIR%/EuroNCAP_MDB_intrusion.csv
```

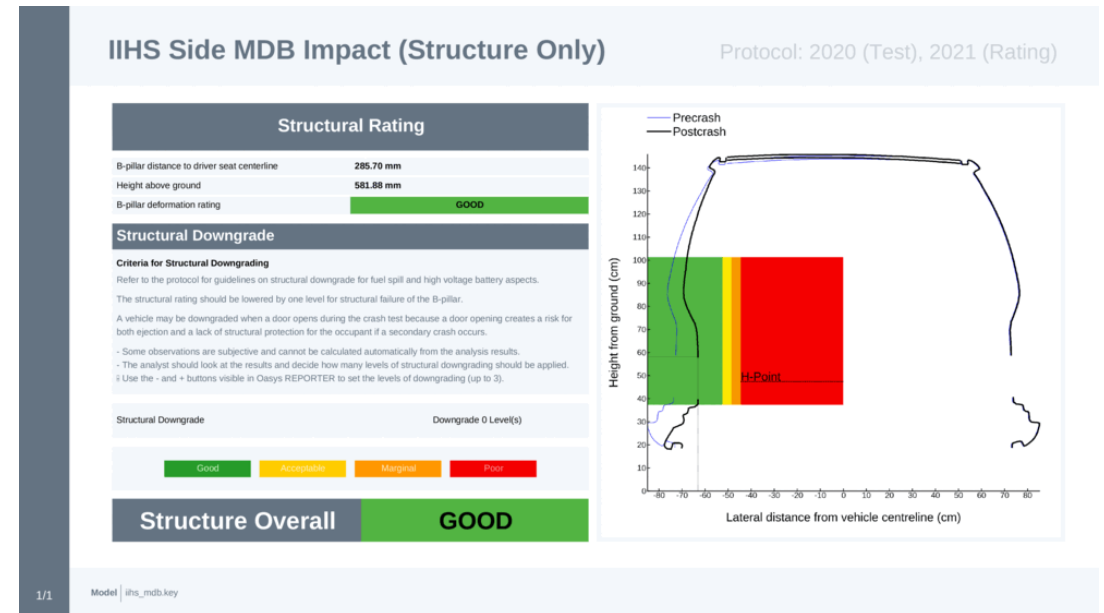
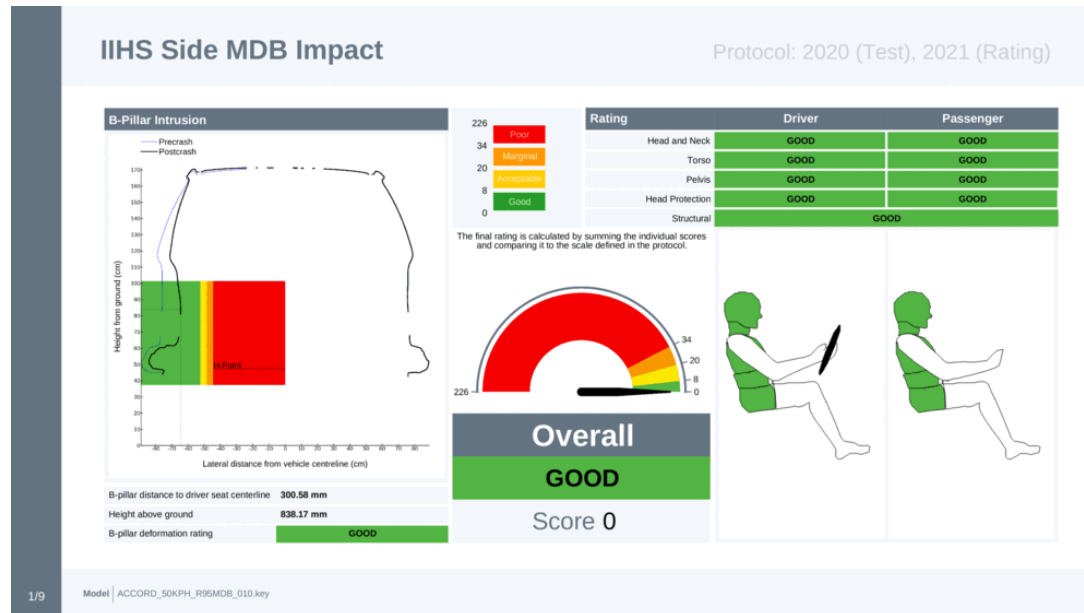
```
%IMAGES_DIR%/EuroNCAP_Pole_intrusion.csv
```

And is selected as an input for the Far Side Impact template.



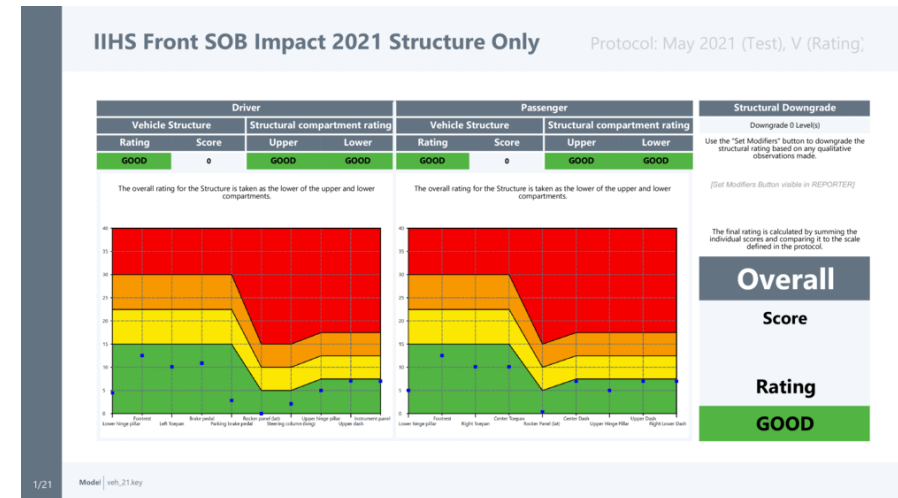
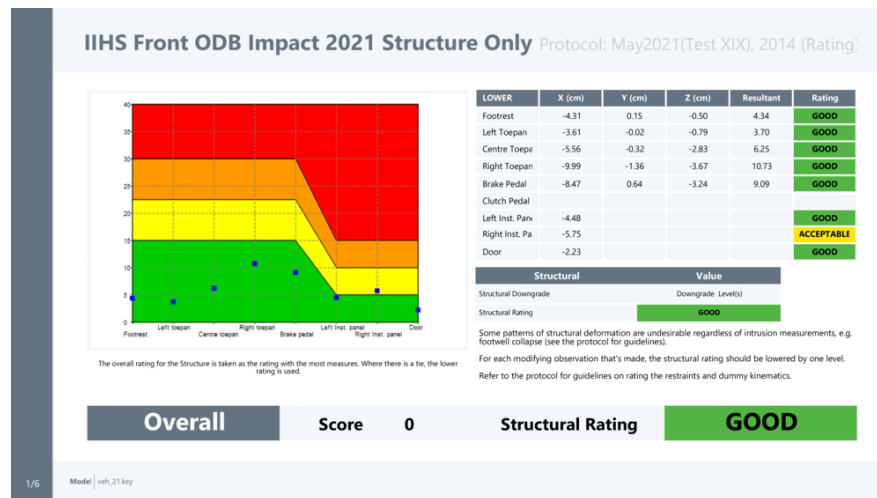
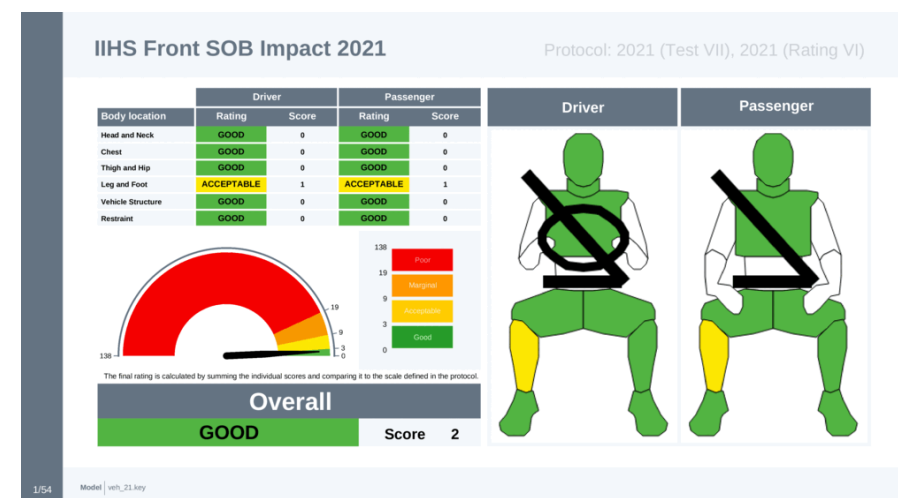
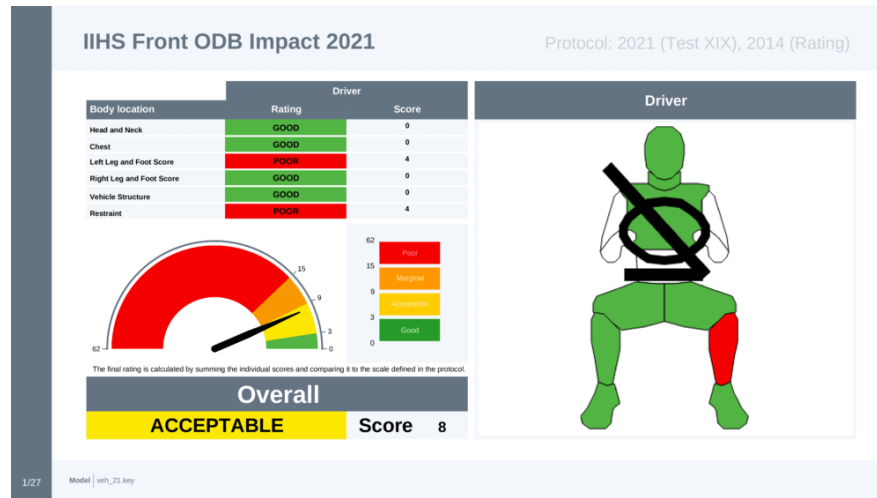
# IIHS Side Impact 2.0

REPORTER 19.0 comes with the new IIHS Side MDB Impact 2021 template, which follows the IIHS Side Impact 2.0 protocol and rating guidelines. There is also a Structure Only version of the template that can be used when occupants are not present in the simulation.



# IIHS Front ODB and SOB Impact 2021

The ODB and SOB Impact templates have been updated to the latest 2021 protocols:



# MPDB Assessment

---

C-NCAP and Euro NCAP **Compatibility** Assessment templates:

- Support for renumbered and/or relabelled Arup Cellbond MPDB Shell models has been improved
- The LSTC MPDB model is now supported

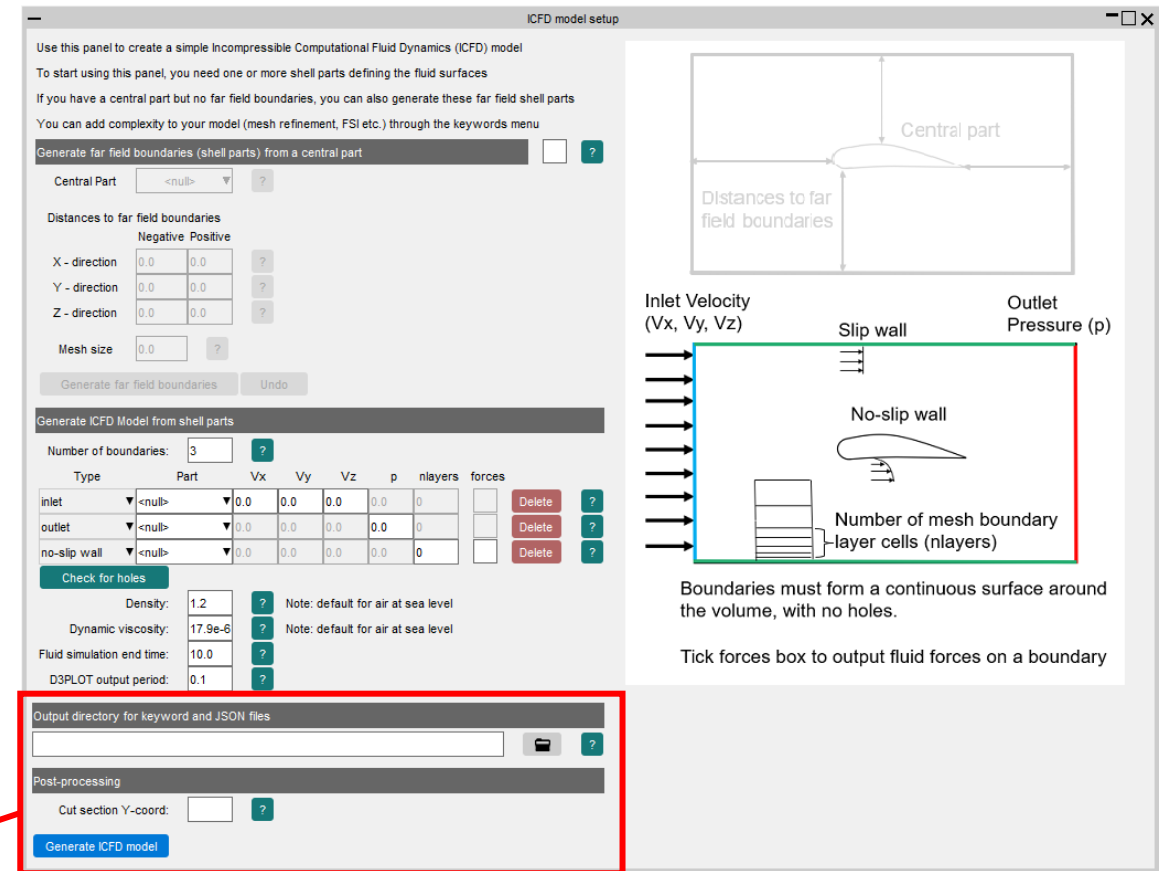
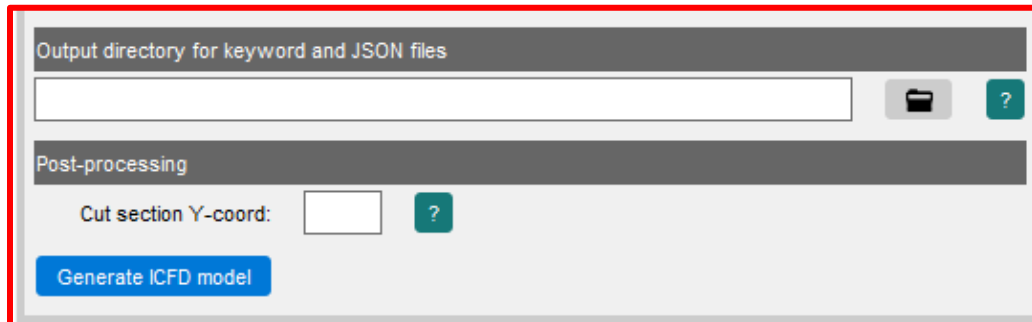
C-NCAP and Euro NCAP **Occupant** Assessment templates:

- The Humanetics THOR 50M v1.8 chest deflection is now calculated from the relative displacement between IR-TRACC nodes rather than from spring elongation. If you have already saved a CSV file with input parameters, you will need to update it to use the IR-TRACC nodes.

# ICFD Library Template

# ICFD Setup

To help you get to grips with LS-DYNA's Incompressible Computational Fluid Dynamics (ICFD) solver, PRIMER comes with an **ICFD Setup** tool. From PRIMER 19.0, the tool lets you specify an output directory for the keyword file. A JSON file is now also written, containing inputs required for post-processing in **REPORTER**. These include a cut section that will be taken through the centre of your model.

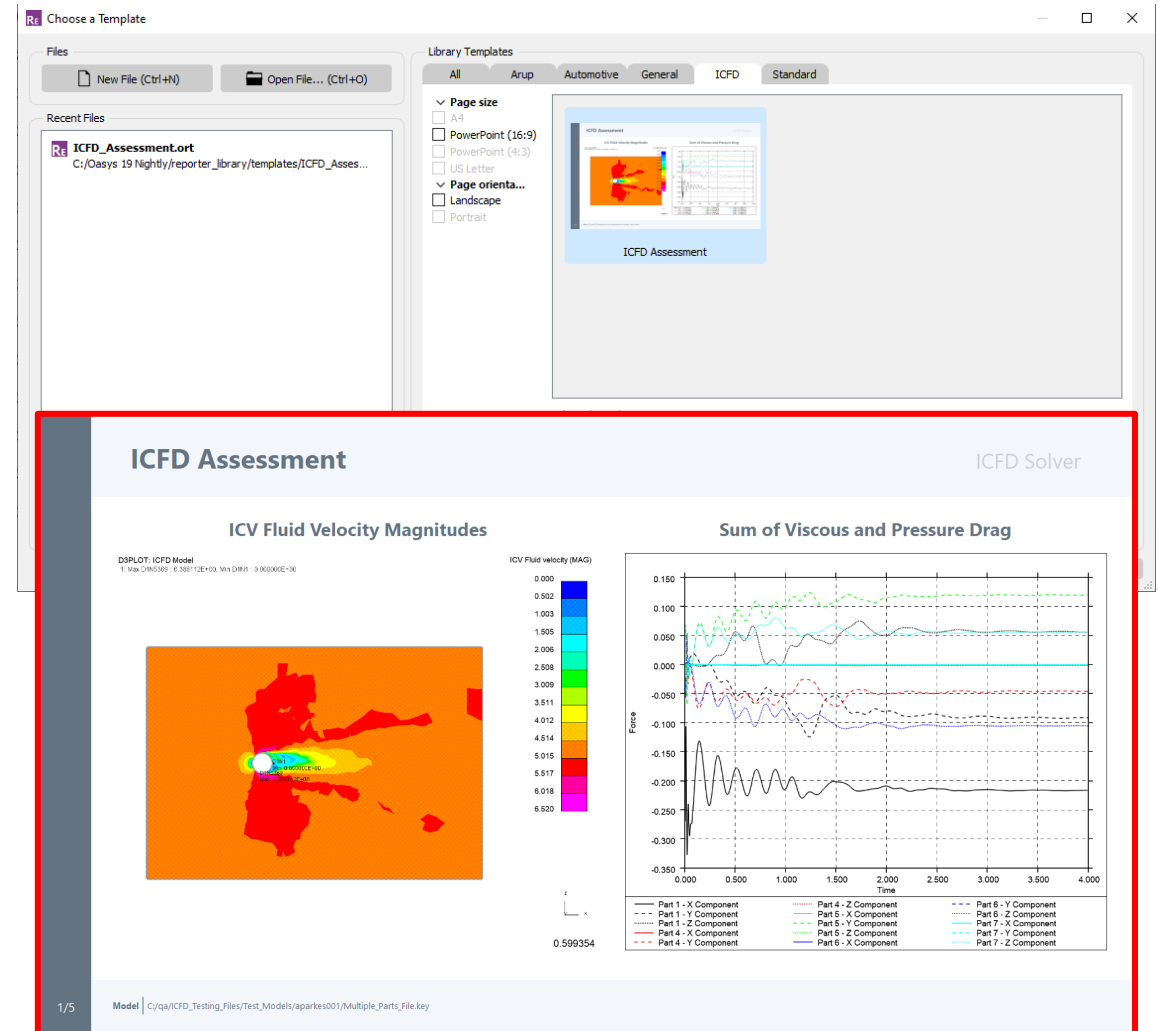


# ICFD Assessment

REPORTER 19.0 comes with an **ICFD Assessment** library template, which can be found in the new **ICFD** tab.

Designed to be used with the **ICFD Setup** tool in **PRIMER**, the template includes:

- An animated contour plot of ICV Fluid Velocity magnitudes on a cut section through the model
- A graph of viscous and pressure drag forces
- A summary table listing the input parameters for reference purposes





# JavaScript

# console API

---

- The JavaScript engine now implements the console API (as specified in <https://console.spec.whatwg.org>) so functions such as `console.log()`, `console.warn()` etc are now usable.
- Output is sent to the log file.

# Contact Information

---

# ARUP

[www.arup.com/dyna](http://www.arup.com/dyna)

For more information please contact us:

## UK

T: +44 121 213 3399  
[dyna.support@arup.com](mailto:dyna.support@arup.com)

## China

T: +86 21 3118 8875  
[china.support@arup.com](mailto:china.support@arup.com)

## India

T: +91 40 69019723 / 98  
[india.support@arup.com](mailto:india.support@arup.com)

## USA West

T: +1 415 940 0959  
[us.support@arup.com](mailto:us.support@arup.com)

or your local Oasys distributor